DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-017577 Address: 333 Burma Road **Date Inspected:** 17-Oct-2010

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: Mr.Oiu Wen. **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No

Yes No N/A **Delayed / Cancelled:** 34-0006 **Bridge No: Component:** Tower and Orthotropic Box Girder (OBG)

Summary of Items Observed:

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

NDT

BAY 10

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL-6028 (MT) report for this date. The member is identified as North Tower lift 3 skin D. The weld designations reviewed are as follows.

Z69-0-C/F-34-1-N,

Z69-0-C/F-34-2-N.

NDT Notification No-06990

This QA Inspector observed the following work in progress:

BAY 11

OBG Bike path plate FCAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 049220, 042218, Perform Flux Core

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Arc Welding (FCAW) on OBG bike path stringer plate to deck plate. Joint identified as BK005A4-003-066, 077. ZPMC CWI Identified as Yu Dong Ping. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132. For more information see below attached picture number 1.

OBG Bike path plate FCAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 054460, Perform Flux Core Arc Welding (FCAW) on OBG bike path. Joint identified as BK004A6-021-002, 007. ZPMC QC Identified as Wang Chiang Xin. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2332-Tc-P4-F.

This QA Inspector observed ZPMC qualified welding personnel identified as 040723, Perform Flux Core Arc Welding (FCAW) on OBG bike path plate. Joint identified as BK004A-022-043. ZPMC QC Identified as Wang Chiang Xin. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2232-Tc-U4c-F.

East Tower lift 3, SMAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 202323, Perform Shielded metal Arc Welding (SMAW) on East tower lift 3 skin C base metal repair, depth approx 4mm. ZPMC QC Identified as Zhao Mao Mao with temporary welding repair report WRR-T-WR3553. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-SMAW-4G (4F)-Repair.

BAY 10

OBG Bike path plate FCAW process:

This QA Inspector observed ZPMC qualified welding personnel identified as 057258, Perform Flux Core Arc Welding (FCAW) on OBG bike path plate. Joint identified as BK004A6-028-072, 073. ZPMC QC Identified as Yu Zhi Lai. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132.

This QA Inspector observed ZPMC qualified welding personnel identified as 040521, 040268, Perform Shielded Metal Arc Welding (SMAW) on OBG bike path plate. Joint identified as BK004A3-028-019, 020, 032, 033, 043, 044, 058, 059. ZPMC QC Identified as Yu Zhi Lai. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2113.

This QA Inspector observed ZPMC qualified welding personnel identified as 057258, 500363, Perform Shielded Metal Arc Welding (SMAW) on OBG bike path plate. Joint identified as BK004A1-026-044. ZPMC QC Identified as Yu Zhi Lai. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2214-B-U2.

Magnetic Particle Testing:

This QA Inspector observed ZPMC Magnetic Particle Testing Inspector, performed MT on Tower façade seal angle plate. Joint identified as ND1-SFSA4-158, 114, 115, 312. For more information see below attached picture number 2.

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Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.





Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Michael Ng Phone: 15921845703, who represents the Office of Structural Materials for your project.

Inspected By:	Gaikwad,Shailesh	Quality Assurance Inspector
Reviewed By:	Clifford, William	QA Reviewer